

# Darren Lee Jackson

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## Professional experience

### 1999 – 2002   Environmental Technology Laboratory   Boulder, CO

#### Associate Scientist III

- Developed code to limb correct, cloud detect, and remove inter-satellite bias from 20 years of TOVS/ATOVS 1b data
- Conducted simulations of satellite radiance using line-by-line, MODTRAN and fast radiative transfer models
- Developed upper tropospheric humidity (UTH) retrieval, processed 20 years of UTH data, and analyzed UTH trends and variability
- Analyzed the global water vapor budget using NCEP Re-analysis data set

### 1994 – 1999   Climate Diagnostic Center                      Boulder, CO

#### Professional Research Assistant

- Processed and analyzed the NESDIS Operational sounding clear column radiance data
- Performed intercomparison of upper tropospheric water vapor data derived from TOVS, SSMI, SAGE, and radiosonde data and compared these observed data to climate model simulations
- Developed and implemented code to archive TOVS 1b satellite data

### 1989 – 1994   Colorado State University                      Fort Collins, CO

#### Graduate Research Assistant

- Analyzed temporal and spatial variability of four years of precipitable water derived from the SSM/I
- Conducted comparison study of precipitable water measurements derived from radiosonde and satellite observations

### 1986 – 1989   Iowa State University                      Ames, IA

#### Undergraduate Research Assistant

- Assisted in the research of retrieving ozone concentrations using satellite observations

## Technical skills

- Expertise using UNIX, Linux and Microsoft Operating Systems
- Extensive experience with FORTRAN 77, FORTRAN 90, IDL, C shell, Pearl languages.
- Proficiency in using Microsoft Office (and analogous software) such as Word, Excel and PowerPoint.
- Experience in writing for technical journals and presentations for scientific conferences.

Education	<p><u>1989 – 1992 Colorado State University Fort Collins, CO</u>          Atmospheric Science</p> <ul style="list-style-type: none"> <li>▪ Master of Science, GPA: 3.9/4.0</li> </ul>
	<p><u>1985 – 1989 Iowa State University Ames, IA</u>          Meteorology</p> <ul style="list-style-type: none"> <li>▪ Bachelor of Science, GPA: 3.7/4.0</li> <li>▪ Graduated with Distinction and Honors</li> </ul>
Professional memberships	<ul style="list-style-type: none"> <li>• Member of American Meteorological Society (1986-2002)</li> <li>• Member of American Geophysical Union (2000-2002)</li> </ul>
References	References available upon request
Publications	<p>Jackson, D.L. and J.J. Bates 2001: Upper tropospheric humidity algorithm assessment. <i>J. Geophys. Res.</i>, <b>106</b>, 32259-32270.</p> <p>Bates, J.J., D.L. Jackson, and Z. Bergen, 2001: Variability of the upper tropospheric humidity. <i>J. Geophys. Res.</i>, <b>106</b>, 32271-32282.</p> <p>Bates, J.J., and D.L. Jackson 2001: Trends in upper tropospheric humidity. <i>Geophys. Res. Let.</i>, <b>28</b>, 1695-1698.</p> <p>Garand, L. and Co-Authors, 2001: Radiance and Jacobian intercomparison of radiative transfer models applied to HIRS and AMSU channels. <i>J. Geophys. Res.</i>, <b>106</b>, 24017-24031.</p> <p>Bréon, F.-M., D.L. Jackson, and J.J. Bates, 2000: Calibration of the Meteosat water vapor channel using coincident NOAA/HIRS-12 measurements. <i>J. Geophys. Res.</i>, <b>105</b>, 11,925-11,933.</p> <p>Soden, B., and Co-Authors, 2000: An intercomparison of radiation codes for retrieving upper tropospheric humidity in the 6.3-micron band: A report from the 1st GVap workshop. <i>Bull. Amer. Meteor. Soc.</i>, <b>81</b>, 797-808.</p>
Publications (cont.)	<p>Bréon, F.-M., D.L. Jackson, and J.J. Bates, 1999: Evidence of atmospheric contamination on the measurement of the spectral response of GMS-5 water vapor channel. <i>J. Atmos. Oceanic Technol.</i>, <b>16</b>, 1851-1853.</p> <p>Berg, W., J.J Bates, and D.L. Jackson, 1999: Analysis of upper-</p>

tropospheric water vapor brightness temperatures from SSM/T2, HIRS, and GMS-5 VISSR. *J. Appl. Meteor.*, **38**, 580-595.

Bates, J.J., and D.L. Jackson, 1997: A comparison of water vapor observations with AMIP-I simulations. *J. Geophys. Res.*, **102**, 21,837-21,852.

Bates, J.J., X. Wu, and D.L. Jackson, 1996: Interannual variability of upper tropospheric water vapor band brightness temperature. *J. Climate*, **9**, 427-438.

Stephens, G.L., D.L. Jackson, and I. Wittmeyer, 1996: Global observations of upper-tropospheric water vapor derived from TOVS radiance data. *J. Climate*, **9**, 305-326.

Jackson, D.L., and G.L. Stephens, 1995: A study of SSM/I derived columnar water vapor over the global oceans. *J. Climate*, **8**, 2025-2038.

Stephens, G.L., D.L. Jackson, and J.J. Bates, 1994: A comparison of SSM/I and TOVS column water vapor data over the global oceans. *Meteorol. Atmos. Phys.*, **54**, 183-201.

Greenwald, T.J., G.L. Stephens, T.H. Vonder Haar, and D.L. Jackson, 1993: A physical retrieval of cloud liquid water over the global oceans using SSM/I observations. *J. Geophys. Res.*, **98**, 18,471-18,488.

Tjemkes, S.A., G.L. Stephens, and D.L. Jackson, 1991: Spaceborne observation of columnar water vapor: SSM/I observations and algorithm. *J. Geophys. Res.*, **96**, 10,941-10,954.